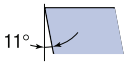
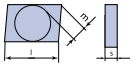
# A P K T


**Shape**
80° Diamond




**Clearance Angle**
15°



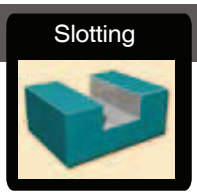
**Tolerance**
l ± 0.05 m ± 0.013
s ± 0.025

**Insert Type**
Screw Down Clamping
no chip breaker

| Insert designation | Grade | l | s | P/r | D | Direction | Catalog Nr. | Page |
|---|---|---|---|---|---|---|---|---|
| APKT 1604 PDTR | LT 30 | 16 | 4,76 | 90º | 15º | Right | M0000021 | 143 |
| APKT 160424 ER | LT 30 | 16 | 4,76 | 2,4 | 15º | Right | M0000300 | 143 |
| APKT 1705 PETR | LT 30 | 17 | 5,56 | 2,4 | 15º | Right | M0001810 | 144 |

## Surfacing Insert Lead angle 90°

Application Guide






Multi purpose 90° milling inserts. Suitable for Roughing to Finishing - Slotting, Shoulder and Face milling operations.

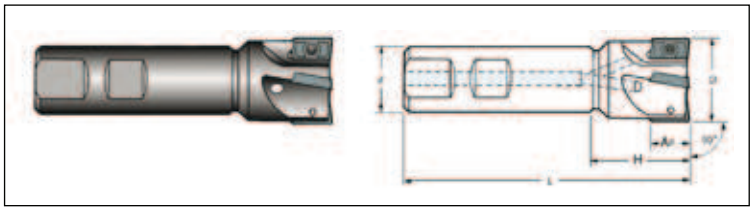


Machining Recommendation Guide - Please see Pg. 8

LAMINA TECHNOLOGIES

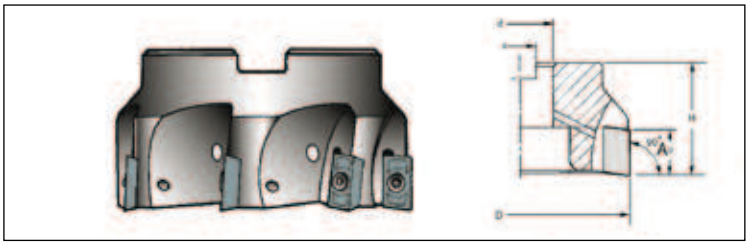
| Catalog Nr. | Description | D | d | L | H | Ap | z |
|---|---|---|---|---|---|---|---|
| M2000536 | LT 730 W-W-D25 | 25 | 25 | 100 | 44 | 15 | 2 |
| M2001478 | LT 730 W-WL-D25 | 25 | 20 | 150 | 44 | 15 | 2 |
| M2000537 | LT 730 W-W-D32 | 32 | 32 | 110 | 50 | 15 | 3 |
| M2001479 | LT 730 W-WL-D32 | 32 | 25 | 150 | 50 | 15 | 3 |
| M2000538 | LT 730 W-W-D40 | 40 | 32 | 115 | 45 | 15 | 4 |
| M2001480 | LT 730 W-WL-D40 | 40 | 32 | 150 | 45 | 15 | 4 |

Screw set: VT 40 Key set: CT 15



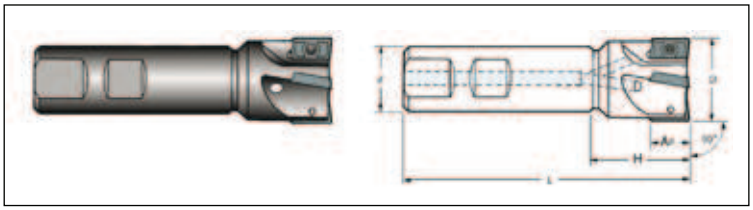
| Catalog Nr. | Description | D | d | H | Ap | z |
|---|---|---|---|---|---|---|
| M2000539 | LT 730 M-W-D40 | 40 | 16 | 40 | 15 | 4 |
| M2000540 | LT 730 M-W-D50 | 50 | 22 | 40 | 15 | 5 |
| M2000541 | LT 730 M-W-D63 | 63 | 22 | 40 | 15 | 6 |
| M2000542 | LT 730 M-W-D80 | 80 | 27 | 50 | 15 | 7 |
| M2000543 | LT 730 M-W-D100 | 100 | 32 | 50 | 15 | 8 |
| M2000544 | LT 730 M-W-D125 | 125 | 40 | 63 | 15 | 9 |
| M2000545 | LT 730 M-W-D160 | 160 | 40 | 63 | 15 | 10 |

W = With coolant Screw set: VT 40 Key set: CT 15



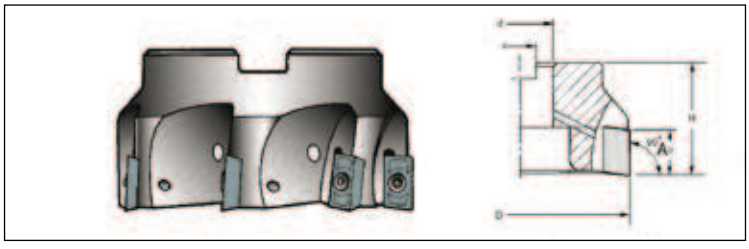
| Catalog Nr. | Description | D | d | L | H | Ap | z | |
|---|---|---|---|---|---|---|---|---|
| M2001833 | LT737 W-W-D25/2 | 25 | 20 | 100 | 32 | 14 | 2 | |
| M2001834 | LT737 W-W-D32/3 | 32 | 32 | 110 | 40 | 14 | 3 | |
| M2001835 | LT737 W-W-D40/4 | 40 | 32 | 115 | 45 | 14 | 4 | |
| M2001836 | LT737 W-WL-D25/2 | 25 | 25 | 210 | 40 | 14 | 2 | |
| M2001837 | LT737 W-WL-D32/3 | 32 | 32 | 200 | 65 | 14 | 3 | |

Screw set: VT 40 Key set: CT 15



| Catalog Nr. | Description | D | d | H | Ap | z |
|---|---|---|---|---|---|---|
| M2001838 | LT737 M-W-D40/4 | 40 | 16 | 40 | 14 | 4 |
| M2001839 | LT737 M-W-D50/5 | 50 | 22 | 40 | 14 | 5 |
| M2001841 | LT737 M-W-D63/6 | 63 | 22 | 40 | 14 | 6 |
| M2001842 | LT737 M-W-D80/7 | 80 | 27 | 50 | 14 | 7 |
| M2001843 | LT737 M-W-D100/7 | 100 | 32 | 50 | 14 | 7 |
| M2001844 | LT737 M-W-D125/9 | 125 | 40 | 63 | 14 | 9 |
| M2001845 | LT737 M-W-D160/10 | 160 | 40 | 63 | 14 | 10 |

W = With coolant Screw set: VT 40 Key set: CT 15



LAMINA TECHNOLOGIES

| Material Group | Group No | Material Examples* | Brinell hardness | d.o.c [mm] | | feed [mm/tooth] | | $V_c$ [m/min] | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | min | max | min | max | min | max |
| Low Carbon Steel | 1 | Ck15, Ck45<br>1020, 1045 | 150 | 0.5 | 15.0 | 0.18 | 0.32 | 180 | 300 |
| | | | 180 | | 15.0 | | 0.32 | | 260 |
| | | | 210 | | 15.0 | | 0.32 | | 220 |
| Alloy Steel | 2 | 42 CrMo 4<br>St 50-2<br>Ck60<br>1060<br>4140 | 180 | 0.5 | 15.0 | 0.15 | 0.25 | 130 | 200 |
| | | | 230 | | 15.0 | | 0.25 | | 180 |
| | | | 280 | 0.5 | 15.0 | 0.15 | 0.22 | 100 | 160 |
| | | | 320 | | 15.0 | | 0.22 | | 140 |
| High Alloy Steel | 3 | X40 CrMoV 5 1<br>H 13<br>40 NiCrMo 6<br>4340<br>S 2-10-1-8<br>HSS M42 | 220 | 0.5 | 12.0 | 0.12 | 0.22 | 90 | 130 |
| | | | 280 | | 12.0 | | 0.22 | | 110 |
| | | | 320 | 0.5 | 12.0 | 0.12 | 0.18 | 60 | 100 |
| | | | 350 | | 12.0 | | 0.18 | | 90 |
| | | | 400 | 0.5 | 5.0 | 0.10 | 0.18 | 40 | 80 |
| | | | 480 | | 3.0 | | 0.16 | | 70 |
| | | | 550 | | 1.5 | | 0.14 | | 60 |
| Austenitic Stainless Steel | 4 | X5 CrNi 18 9<br>304 | 210 to 250 | 0.5 | 15.0 | 0.15 | 0.25 | 190 | 250 |
| | 5 | X2 CrNiMo 17 2 2<br>316 | 230 to 270 | 0.5 | 15.0 | 0.12 | 0.22 | 120 | 210 |
| | 6 | X6 CrNiMoTi 17 12 2<br>316 Ti Duplex / Nitronic | -------- | 0.5 | 12.0 | 0.12 | 0.18 | 70 | 120 |
| Ferritic Stainless Steel | 7 | X8 Cr 7<br>430 | Annealed | 0.5 | 15.0 | 0.15 | 0.25 | 150 | 230 |
| Martensitic Stainless Steel | 8 | X15 Cr 13<br>410 | Annealed | 0.5 | 15.0 | 0.15 | 0.25 | 130 | 210 |
| | | | Treated | 0.5 | 15.0 | 0.15 | 0.20 | 90 | 150 |
| Grey Cast Iron | 9 | GG 20 | 140 to 230 | 0.5 | 15.0 | 0.18 | 0.32 | 150 | 240 |
| | | GG 25 | | | | | | | 220 |
| | | GG 30 | | | | | | | 190 |
| Nodular Cast Iron | 10 | GGG 40 | 210 | 0.5 | 15.0 | 0.15 | 0.28 | 100 | 200 |
| | | GGG 50 | 260 | | | | | | 160 |
| | | GGG 70 | 310 | | | | | | 130 |
| | | G-X260NiCr42 | 450 | 0.5 | 3.0 | 0.10 | 0.14 | 30 | 60 |
| Nickel Based Alloys | 11 | Inconel 625 | -------- | 0.5 | 12.0 | 0.12 | 0.18 | 25 | 35 |
| | | Inconel 718 | | | | | | 28 | 38 |
| | | Hastelloy C | | | | | | 40 | 65 |
| Titanium Based Alloys | 12 | TiAl 6 V4 | -------- | 0.5 | 12.0 | 0.12 | 0.20 | 35 | 60 |
| | | T40 | | | | | 0.18 | 28 | 40 |

| Material Group | Group No | Material Examples* | Brinell hardness | d.o.c [mm] | | feed [mm/tooth] | | $V_c$ [m/min] | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | min | max | min | max | min | max |
| Low Carbon Steel | 1 | Ck15, Ck45<br>1020, 1045 | 150 | 0.5 | 15.0 | 0.18 | 0.40 | 180 | 300 |
| | | | 180 | | 15.0 | | 0.35 | | 260 |
| | | | 210 | | 15.0 | | 0.32 | | 220 |
| Alloy Steel | 2 | 42 CrMo 4<br>St 50-2<br>Ck60<br>1060<br>4140 | 180 | 0.5 | 15.0 | 0.18 | 0.35 | 130 | 200 |
| | | | 230 | | 15.0 | | 0.32 | | 180 |
| | | | 280 | 0.5 | 15.0 | 0.18 | 0.30 | 100 | 160 |
| | | | 320 | | 15.0 | | 0.28 | | 140 |
| High Alloy Steel | 3 | X40 CrMoV 5 1<br>H 13<br>40 NiCrMo 6<br>4340<br>S 2-10-1-8<br>HSS M42 | 220 | 0.5 | 15.0 | 0.18 | 0.32 | 90 | 130 |
| | | | 280 | | 15.0 | | 0.30 | | 110 |
| | | | 320 | 0.5 | 7.0 | 0.15 | 0.28 | 60 | 100 |
| | | | 350 | | 7.0 | | 0.26 | | 90 |
| | | | 400 | 0.5 | 4.0 | 0.10 | 0.24 | 40 | 80 |
| | | | 480 | | 2.0 | | 0.22 | | 70 |
| | | | 550 | | 1.0 | | 0.20 | | 60 |
| Austenitic Stainless Steel | 4 | X5 CrNi 18 9<br>304 | 210 to 250 | 0.5 | 9.0 | 0.15 | 0.22 | 190 | 250 |
| | 5 | X2 CrNiMo 17 2 2<br>316 | 230 to 270 | 0.5 | 9.0 | 0.15 | 0.20 | 160 | 210 |
| | 6 | X6 CrNiMoTi 17 12 2<br>316 Ti Duplex / Nitronic | -------- | 0.5 | 9.0 | 0.15 | 0.18 | 70 | 120 |
| Ferritic Stainless Steel | 7 | X8 Cr 7<br>430 | Annealed | 0.5 | 9.0 | 0.10 | 0.20 | 150 | 230 |
| Martensitic Stainless Steel | 8 | X15 Cr 13<br>410 | Annealed | 0.5 | 9.0 | 0.10 | 0.20 | 130 | 210 |
| | | | Treated | 0.5 | 9.0 | 0.10 | 0.20 | 90 | 150 |
| Grey Cast Iron | 9 | GG 20 | 140 to 230 | 0.5 | 9.0 | 0.20 | 0.45 | 150 | 240 |
| | | GG 25 | | | | | | | 220 |
| | | GG 30 | | | | | | | 190 |
| Nodular Cast Iron | 10 | GGG 40 | 210 | 0.5 | 9.0 | 0.20 | 0.45 | 100 | 200 |
| | | GGG 50 | 260 | | | | | | 160 |
| | | GGG 70 | 310 | | | | | | 130 |
| | | G-X260NiCr42 | 450 | 0.5 | 3.0 | 0.10 | 0.22 | 30 | 60 |
| Nickel Based Alloys | 11 | Inconel 625 | -------- | 0.5 | 5.0 | 0.08 | 0.15 | 25 | 35 |
| | | Inconel 718 | | | | | | 28 | 38 |
| | | Hastelloy C | | | | | | 40 | 65 |
| Titanium Based Alloys | 12 | TiAl 6 V4 | -------- | 0.5 | 5.0 | 0.08 | 0.18 | 35 | 60 |
| | | T40 | | | | | 0.15 | 28 | 40 |